

Mr. Jay Cox  
DMI Furniture, Inc.  
703 N. Chestnut Street  
P.O. Box 129  
Huntingburg, IN 47542

Re: 037-11538  
First Significant Permit Modification to  
Part 70 No.: T 037-5992-00058

Dear Mr. Cox:

DMI Furniture, Inc. was issued a permit on January 25, 1999, for a stationary wood bedroom furniture manufacturing plant. A letter requesting changes to this permit was received on October 25, 1999. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved to operate a new spray coating booth (approved to be constructed under Minor Source Modification No. 037-11491-00058), as described below (bolded language has been added to the permit, the language with a line through it has been deleted from the permit).

(a) Section A.2 Emission Units and Pollution Control Equipment (Page 6):

**(15) One (1) surface coating booth, identified as 12A5, with a maximum capacity of 21.5 pounds of coating per hour, using dry filters as control, and exhausting to stack #12A5.**

(b) Section D.1 Facility Description Box (Page 28):

**(15) One (1) surface coating booth, identified as 12A5, with a maximum capacity of 21.5 pounds of coating per hour, using dry filters as control, and exhausting to stack #12A5.**

(c) Section D.1.4 (Page 29):

Pursuant to 326 IAC 6-1-2, the PM from the spray booths emission units B1, B2, BA4, A1, A2, ~~A5~~, F1, F2, F3, F5, F7 and F8, shall be limited to 0.03 grain per dry standard cubic foot.

(d) Section D.1.10 (Page 31):

**(a)** Pursuant to CP 037-5474-00058, issued on July 22, 1996, the dry filters for PM control shall be in operation at all times when the spray booths (B1, B2, BA4, A1, A2, F1, F2, F3, F5, F7 and F8) are in operation.

**(b) The dry filter for PM control shall be in operation at all times when spray booth A5 is in operation.**

(e) Part 70 Quarterly Report (Page 39):

Facility: ~~Nineteen (19)~~ **Twenty (20)** surface coating operations, including cleanup solvents

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Rachel Meredith, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Rachel Meredith or extension 3-5691, or dial (317) 233-5691.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

Attachments

RLM

cc: File - Dubois County  
U.S. EPA, Region V  
Southwest Regional Office  
Dubois County Health Department  
Air Compliance Section Inspector - Gene Kelso  
Compliance Data Section - Karen Nowak  
Administrative and Development - Janet Mobley  
Technical Support and Modeling - Michele Boner

# **PART 70 OPERATING PERMIT OFFICE OF AIR MANAGEMENT**

**DMI Furniture, Inc. Plant #12  
#12 DMI Lane  
Huntingburg, Indiana 47542**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T037-5992-00058	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: January 25, 1999

First Significant Permit Modification: 037-11538	Pages Affected: 1, 6, 28, 29, 30, 31, 32, 33 and 39
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

- (7) One (1) surface coating spray booth, identified as 12F3, with a maximum capacity of 6.1 pounds of coating per hour, using dry filters as control and exhausting to stack 12F3.
- (8) One (1) surface coating booth, identified as 12F5, with a maximum capacity of 6.6 pounds of coating per hour, using dry filters as control and exhausting to stack 12F5.
- (9) One (1) surface coating booth, identified as 12F7, with a maximum capacity of 8.5 pounds of coating per hour, using dry filters as control and exhausting to stack 12F7.
- (10) One (1) surface coating booth, identified as 12F8, with a maximum capacity of 36.1 pounds of coating per hour, using dry filters as control and exhausting to stack 12F8.
- (11) Two (2) rollcoat booths, identified as 12P2 and 12P4, with a maximum capacity of 19.9 pounds of coating per hour each and exhausting internally.
- (12) One (1) rollcoat booth, identified as 12P11, with a maximum capacity of 14.3 pounds of coating per hour and exhausting internally.
- (13) One (1) rollcoat booth, identified as 12P2A, with a maximum capacity of 3.2 pounds of coating per hour and exhausting internally.
- (14) Four (4) rollcoat booths, identified as 12P7, 12P8, 12P9 and 12P9A, with a maximum capacity of 0.9, 3.5, 3.4 and 3.5 pounds of coating per hour, respectively and exhausting internally.
- (15) One (1) surface coating booth, identified as 12A5, with a maximum capacity of 21.5 pounds of coating per hour, using dry filters as control, and exhausting to stack #12A5.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]  
[326 IAC 2-7-5(15)]

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This stationary source also includes the following insignificant activities specifically regulated, as defined in 326 IAC 2-7-1 (21):

One (1) woodworking operation with a maximum throughput of 9144 pounds per hour. Emissions shall be controlled by one baghouse, and exhausted at three (3) stacks, identified as 12BH1.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION D.1 FACILITY OPERATION CONDITIONS - Surface Coating Operations

### Facility Description [326 IAC 2-7-5(15)]

Nineteen (19) surface coating booths consisting of the following:

- (1) One (1) surface coating booth, identified as 12B1, with a maximum capacity of 9.6 pounds of coating per hour, using dry filters as control, and exhausting to stack # 12B1.
- (2) One (1) surface coating booth, identified as 12B2, with a maximum capacity of 7.3 pounds of coating per hour, using dry filters as control, and exhausting to stack #12B2.
- (3) One (1) surface coating booth, identified as 12BA4, with a maximum capacity of 9.6 pounds of coating per hour, using dry filters as control, and exhausting to stack #12BA4.
- (4) Two (2) surface coating booths, identified as 12A1 and 12A2, with a maximum capacity of 9.2 and 10.7 pounds of coating per hour, respectively, each using dry filters as control, and exhausting to stacks 12A1 and 12A2, respectively.
- (5) One (1) surface coating spray booth, identified as 12F1, with a maximum capacity of 12.5 pounds of coating per hour, using dry filters as control and exhausting to stack 12F1.
- (6) One (1) surface coating booth, identified as 12F2, with a maximum capacity of 38.7 pounds of coating per hour, using dry filters as control and exhausting to stack 12F2.
- (7) One (1) surface coating spray booth, identified as 12F3, with a maximum capacity of 6.1 pounds of coating per hour, using dry filters as control and exhausting to stack 12F3.
- (8) One (1) surface coating booth, identified as 12F5, with a maximum capacity of 6.6 pounds of coating per hour, using dry filters as control and exhausting to stack 12F5.
- (9) One (1) surface coating booth, identified as 12F7, with a maximum capacity of 8.5 pounds of coating per hour, using dry filters as control and exhausting to stack 12F7.
- (10) One (1) surface coating booth, identified as 12F8, with a maximum capacity of 36.1 pounds of coating per hour, using dry filters as control and exhausting to stack 12F8.
- (11) Two (2) rollcoat booths, identified as 12P2 and 12P4, with a maximum capacity of 19.9 pounds of coating per hour each and exhausting internally.
- (12) One (1) rollcoat booth, identified as 12P11, with a maximum capacity of 14.3 pounds of coating per hour and exhausting internally.
- (13) One (1) rollcoat booth, identified as 12P2A, with a maximum capacity of 3.2 pounds of coating per hour and exhausting internally.
- (14) Four (4) rollcoat booths, identified as 12P7, 12P8, 12P9 and 12P9A, with a maximum capacity of 0.9, 3.5, 3.4 and 3.5 pounds of coating per hour, respectively and exhausting internally.
- (15) One (1) surface coating booth, identified as 12A5, with a maximum capacity of 21.5 pounds of coating per hour, using dry filters as control, and exhausting to stack #12A5.

## **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

### **D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR 63, Subpart A]**

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart JJ.

### **D.1.2 PSD Minor Limit (326 IAC 2-2) (40 CFR 52.21)**

Pursuant to CP 037-5474-00058, issued on July 22, 1996, the volatile organic solvent input, including surface coatings, inks and cleanup solvents shall not exceed 249 tons per twelve consecutive month period. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21 will not apply.

### **D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]**

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, the surface coating applied to wood furniture shall utilize one of the following application methods:

- Airless Spray Application
- Air Assisted Airless Spray Application
- Electrostatic Spray Application
- Electrostatic Bell or Disc Application
- Heated Airless Spray Application
- Roller Coating
- Brush or Wipe Application
- Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

### **D.1.4 Particulate Matter (PM) [326 IAC 6-1-2]**

Pursuant to 326 IAC 6-1-2, the PM from the spray booths emission units B1, B2, BA4, A1, A2, A5, F1, F2, F3, F5, F7 and F8, shall be limited to 0.03 grain per dry standard cubic foot.

### **D.1.5 Wood Furniture NESHAP [40 CFR 63, Subpart JJ]**

- (a) The wood furniture coating operation is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-14, (40 CFR 63, Subpart JJ), with a compliance date of November 21, 1997.
- (b) Pursuant to 40 CFR 63, Subpart JJ, the wood furniture coating operations shall comply with the following conditions:
  - (1) Limit the Volatile Hazardous Air Pollutant (VHAP) emissions from finishing operations as follows:

- (A) Achieve a weighted average VHAP content across all coatings of 1.0 pound VHAP per pound solids; or
  - (B) Use compliant finishing materials in which all stains, washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of 1.0 pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a 3.0 percent maximum VHAP content by weight. All other thinners have a 10.0 percent maximum VHAP content by weight; or
  - (C) Use a control device to limit emissions; or
  - (D) Use a combination of (A), (B), and (C).
- (2) Limit VHAP emissions contact adhesives as follows:
- (A) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed 1.8 pounds VHAP per pound solids;
  - (B) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed 1.0 pound VHAP per pound solid; or
  - (C) Use a control device to limit emissions.
- (3) The strippable spray booth material shall have a maximum VOC content of 0.8 pounds VOC per pound solids.

**D.1.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

**D.1.7 Work Practice Standards [40 CFR 63.803]**

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The owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for each wood furniture manufacturing operation and at a minimum address each of the following work practice standards as defined under 40 CFR 63.803:

- (a) Operator training course.
- (b) Leak inspection and maintenance plan.
- (c) Cleaning and washoff solvent accounting system.
- (d) Chemical composition of cleaning and washoff solvents.
- (e) Spray booth cleaning.
- (f) Storage requirements.
- (g) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h).
- (h) Line Cleaning.
- (i) Gun Cleaning.

- (j) Washoff operations.
- (k) Formulation assessment plan for finishing operations.

### **Compliance Determination Requirements**

#### **D.1.8 Testing Requirements [326 IAC 2-7-6(1), (6)][40 CFR 63, Subpart JJ]**

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- (a) Pursuant to 40 CFR 63, subpart JJ, if the Permittee elects to demonstrate compliance using 63.804(a)(3) or 63.804(c)(2) or 63.804(d)(3) or 63.804(e)(2), performance testing must be conducted in accordance with 40 CFR 63, Subpart JJ and 326 IAC 3-6.
- (b) If the OAM requests, compliance with the limits specified in Conditions D.1.2, D.1.4 and D.1.5 shall be determined by performance tests conducted in accordance with Section C- Performance Testing.

#### **D.1.9 Volatile Organic Compounds (VOC)**

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Compliance with the VOC content and usage limitations contained in Condition D.1.2 and D.1.5 shall be determined pursuant to 326 IAC 8-1-2(a) and 326 IAC 8-1-4(a)(3) using formulation data supplied by the coating manufacturer. IDEM, OAM reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

#### **D.1.10 Particulate Matter (PM)**

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- (a) Pursuant to CP 037-5474-00058, issued on July 22, 1996, the dry filters for PM control shall be in operation at all times when the spray booths (B1, B2, BA4, A1, A2, F1, F2, F3, F5, F7 and F8) are in operation.
- (b) The dry filter for PM control shall be in operation at all times when spray booth A5 is in operation.

#### **D.1.11 Monitoring**

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- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booths while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. During periods of inclement weather, these inspections shall be performed as weather permits. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

## **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

### **D.1.12 Record Keeping Requirements**

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- (a) To document compliance with D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. The records shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits established in Condition D.1.2.
  - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as clean-up solvents;
  - (2) Log of dates used;
  - (3) The volume weighted VOC content of the coating used each month;
  - (4) The cleanup solvent usage for each month;
  - (5) The total VOC usage for each month; and
  - (6) The weight of VOCs emitted for each compliance period.
  
- (b) To document compliance with Condition D.1.5, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be complete and sufficient to establish compliance with the VHAP usage limit established in Condition D.1.5.
  - (1) Certified Product Data Sheet for each finishing material, thinner, contact adhesive and strippable booth coating.
  - (2) The VHAP content in pounds of VHAP per pounds of solids, as applied, for all finishing materials and contact adhesives used.
  - (3) The VOC content in pounds of VOC per pounds of solids, as applied, for each strippable coating used.
  - (4) The VHAP content in weight percent of each thinner used.
  - (5) When the averaging compliance method is used, copies of the averaging calculations for each month as well as the data on the quantity of coating and thinners used to calculate the average.
  
- (c) To document compliance with D.1.7, the Permittee shall maintain records demonstrating actions have been taken to fulfill the Work Practice Implementation Plan.
  
- (d) To document compliance with Conditions D.1.10 and D.11, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, or notations of specific weather conditions that prevent monthly roof top inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.13 Reporting Requirements

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- (a) The Permittee shall submit a quarterly report of the monthly VOC usage to document compliance with Condition D.1.2 to the address listed in Section C-General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
- (b) An Initial Compliance Report to document compliance with Condition D.1.5 and the Certification form, shall be submitted within sixty (60) days following the compliance date of November 21, 1997. The Initial Compliance Report must include data from the entire month that the compliance date falls.
- (c) A semi-annual Continuous Compliance Report to document compliance with Condition D.1.5 and the Certification form, shall be submitted within thirty (30) days after the end of the six (6) months being reported.

For the first year following the compliance date, the six (6) month periods shall cover the following months:

- (1) November 21, 1997 through May 20, 1998;
- (2) May 21, through November 30, 1998;
- (3) December 1 through December 31, 1998.
- (d) Following the first year of reporting, the semi-annual Continuous Compliance Report shall be submitted on a calendar year basis with the reporting periods ending June 30 and December 31.
- (e) The reports required in (b), (c) and (d) of this condition shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

### Part 70 Quarterly Report

Source Name: DMI Furniture, Inc. Plant #12  
Source Address: #12 DMI Lane, Huntingburg, Indiana 47542  
Mailing Address: P.O. Box 129, Huntingburg, Indiana 47542  
Part 70 Permit No.: T037-5992-00058  
Facility: Twenty (20) surface coating operations, including cleanup solvents  
Parameter: VOC  
Limit: 249 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	VOC usage this month (tons/month)	VOC usage previous 12 months (tons/month)

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_



# Indiana Department of Environmental Management Office of Air Management

## Technical Support Document (TSD) for a Significant Permit Modification to a Part 70 Operating Permit

### Source Background and Description

**Source Name:** DMI Furniture, Inc. Plant #12  
**Source Location:** #12 DMI Lane, Huntingburg, Indiana 47542  
**County:** Dubois  
**SIC Code:** 2511  
**Operation Permit No.:** T037-5992-00058  
**Permit Modification:** 037-11538-00058  
**Modification Reviewer:** Rachel Meredith

The Office of Air Management (OAM) has reviewed an application for a significant permit modification to a Part 70 permit from DMI Furniture, Inc., Plant #12. The application by DMI Furniture seeks to add an additional spray coating booth to their existing surface coating operations. The facility description for the new surface coating booth is as follows:

- (a) One (1) surface coating booth, identified as 12A5, with a maximum capacity of 21.5 pounds of coating per hour, using dry filters as control, and exhausting to stack #12A5.

### Existing Approvals

The source was issued a Part 70 Operating Permit, No. 037-5992-00058, on January 25, 1999. No further approvals have been issued for this source since issuance of the Part 70 Operating Permit.

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the First Significant Permit Modification to the Part 70 Operating Permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 significant permit modification application for the purposes of this review was received on October 25, 1999.

### County Attainment Status

The source is located in Dubois County.

Pollutant	Status
PM	Attainment
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>x</sub>	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Dubois County has been designated as attainment or unclassifiable for ozone.

**Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential Emissions (tons/year)
PM	14.15
PM-10	14.15
SO <sub>2</sub>	0.0
VOC	37.73
CO	0.0
NO <sub>x</sub>	0.0

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential Emissions (tons/year)
Total HAPs	0.0

**Justification for Modification**

Approval to operate the new surface coating booth is being incorporated into the source's existing Part 70 permit through a significant permit modification pursuant to 326 IAC 2-7-12(d). Minor Source Modification No. 037-11491-00058 will allow the source to construct the new spray coating booth.

**Source Status**

DMI Furniture, Inc.'s potential to emit PM-10, and VOC is equal to or greater than 100 tons per year, the potential to emit a single HAP is equal to or greater than 10 tons per year, and the potential to emit a combination of HAPs is equal to or greater than 25 tons per year. Therefore, this source is considered a Major Source under 326 IAC 2-7. Although the potential to emit VOC is

greater than 250 tons per year, the source is a Minor Source for PSD based on a Minor PSD limit of 249 tons per year of VOCs. The following table reflects DMI's existing potential to emit before modification.

Pollutant	Potential Emissions (tons/year)
PM	greater than 100, less than 250
PM-10	greater than 100, less than 250
SO <sub>2</sub>	less than 100
VOC	limited to less than 250
CO	less than 100
NO <sub>x</sub>	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential Emissions (tons/year)
Xylene	greater than 10
Toluene	greater than 10
Hexone	greater than 10
2-Butanone	greater than 10
Methanol	greater than 10
Ethylbenzene	greater than 10
TOTAL	greater than 25

### Limited PTE

The new surface coating booth will utilize a dry filter system with an anticipated control efficiency of 98%. The limited potential to emit based on the use of this control equipment is reflected in the following table.

Pollutant	Limited PTE (tons/year)
PM	0.28
PM-10	0.28
SO <sub>2</sub>	0.0
VOC	37.73
CO	0.0
NO <sub>x</sub>	0.0

See Appendix A for detailed emissions calculations.

### Federal Rule Applicability

#### 40 CFR 63, Subpart JJ

The new spray coating booth will be a part of the source's wood furniture coating operation and therefore subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-14, (40 CFR 63, Subpart JJ).

- (a) Pursuant to 40 CFR 63, Subpart JJ, the wood furniture coating operations shall comply with the following conditions:

- (1) Limit the volatile hazardous air pollutant (VHAP) emissions from finishing operations as follows:
  - (A) Achieve a weighted average VHAP content across all coatings of 1.0 pound VHAP per pound solids; or
  - (B) Use compliant finishing materials in which all stains, washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of 1.0 pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a 3.0 percent maximum VHAP content by weight. All other thinners have a 10.0 percent maximum VHAP content by weight; ; or
  - (C) Use a control device to limit emissions; or
  - (D) Use a combination of (A), (B), and (C).
- (2) Limit the VHAP emissions contact adhesives as follows:
  - (A) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed 1.8 pounds VHAP per pound solids;
  - (B) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed 1.0 pound VHAP per pound solid; or
  - (C) Use a control device to limit emissions.
- (3) The strippable spray booth material shall have a maximum VOC content of 0.8 pounds VOC per pound solids.
- (4) The source shall complete a work practice implementation plan within sixty (60) calendar days after the source's compliance date as specified in 40 CFR 63.803. The plan must detail how the source will incorporate environmentally desirable practices into the operation.
- (5) A semi-annual summary report shall be prepared and submitted to IDEM, OAM, and EPA Region V, to document the ongoing compliance status of the wood furniture coating operations.

### **State Rule Applicability**

#### **326 IAC 2-2 (Prevention of Significant Deterioration)**

The new spray coating booth will be included under the PSD Minor limit of 249 tons per year together with the existing 19 spray coating units. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21 will not apply.

#### **326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)**

Pursuant to 326 IAC 8-2-12, the surface coating applied to wood furniture shall utilize one of the following application:

- Airless Spray Application
- Air Assisted Airless Spray Application

Electrostatic Spray Application  
Electrostatic Bell or Disc Application  
Heated Airless Spray Application  
Roller Coating  
Brush or Wipe Application  
Dip-and Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pound per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

HVLP is the application method for the new spray coating booth. Therefore the new spray coating booth is in compliance with this rule.

### **Compliance Requirements**

There are no changes in compliance requirements from the Part 70 Operating Permit.

### **Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

- (a) This source will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the 1990 Clean Air Act Amendments.

### **Conclusion**

The operation of the spray coating booth shall be subject to the conditions of the attached proposed **First Significant Permit Modification No. 037-11538-00058**.

**Appendix A: Emissions Calculations  
VOC and Particulate from Proposed Unit A5 (Worst Case)**

**Company Name:** DMI Furniture, Inc.  
**Address City IN Zip:** #12 DMI Lane, Huntingburg, IN 47542  
**Modification No:** 037-11491  
**Plt ID:** 037-00058  
**Reviewer:** Rachel Meredith  
**Date:** October 27, 1999

Material	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
541R55	6.73	40.00%	0.000%	40.0%	0.000%	60.00%	3.20000	1.000	2.69	2.69	8.61	206.75	37.73	14.15	4.49	75%
Total Emissions After Control (Unit A5 will have a dry filter for PM control - control efficiency 98%)													37.73	0.28		

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

**Appendix A: Emissions Calculations  
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Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)  
Total = Worst Coating + Sum of all solvents used